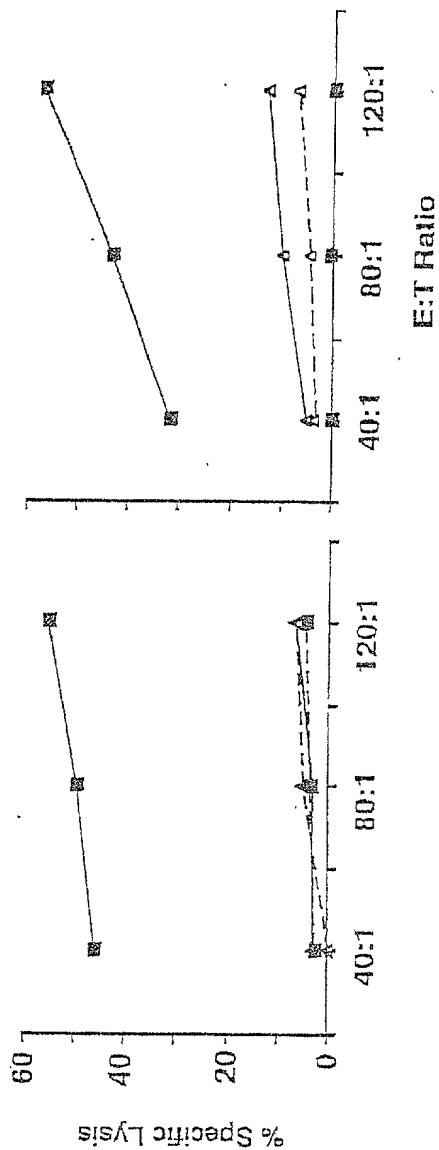
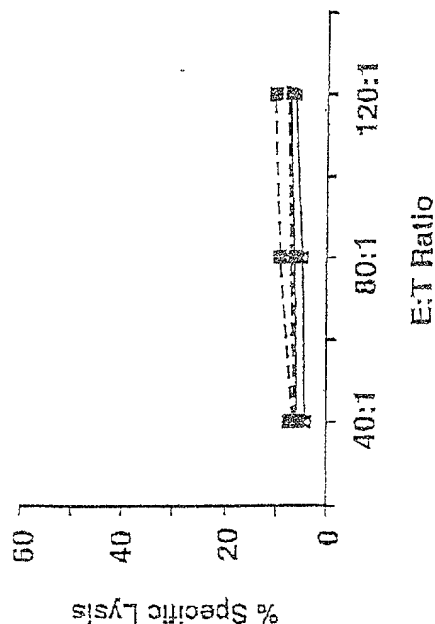


Figure 1A
 C57BL/6 (Wild Type) CD4^{-/-}



β2m^{-/-}



Effector Cells elicited with:

■ OVA.TBhsp70
 △ OVA

Target Cells:

- - - T2-K^b
 — T2-K^b+SINFEKL peptide (e.g., 1 x 10⁻⁷M)

Figure 1C

Figure 2A

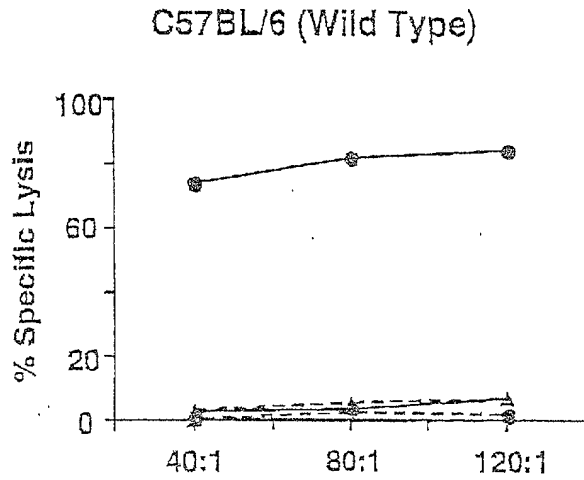
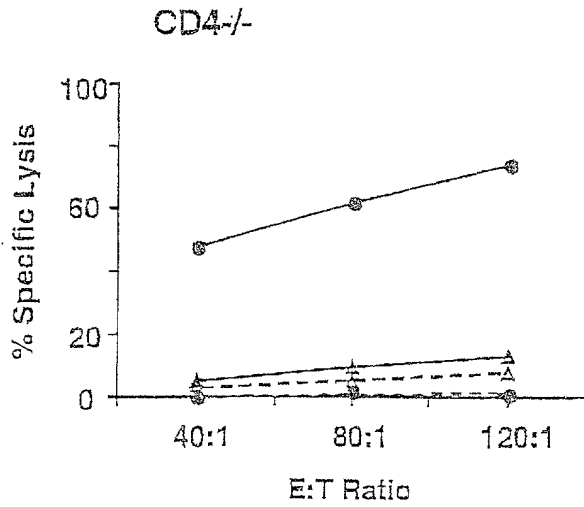


Figure 2B



Effector Cells

elicited with:

● OVA.mhsp70

△ OVA

Target Cells:

--- T2-K^b

— T2-K^b+SIINFEKL

Hsp70 Domains

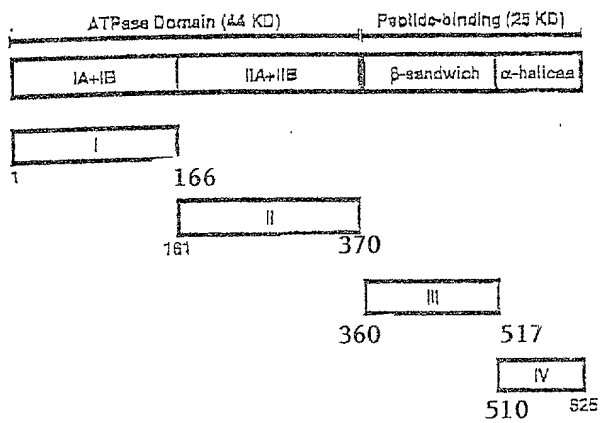


Figure 3

C57BL/6

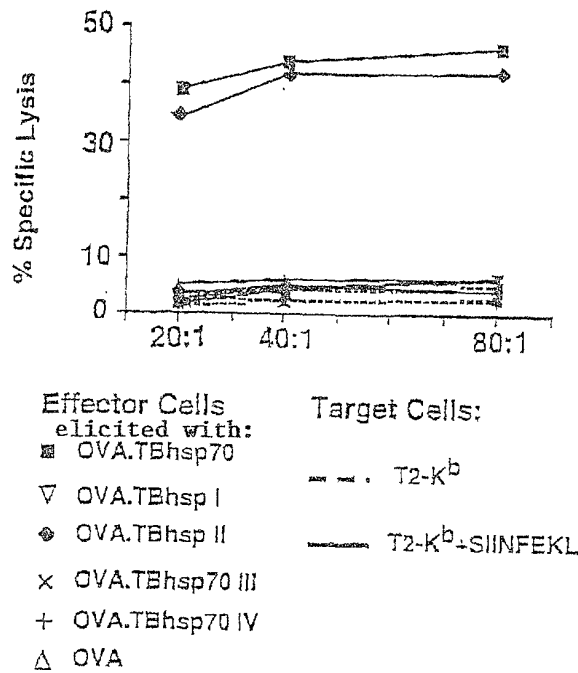


Figure 4

Figure 5A

IKVSGLEQLSIRYYGLLLKEAY
 Ova ↑ αKG

Hsp65 P1

Figure 5B

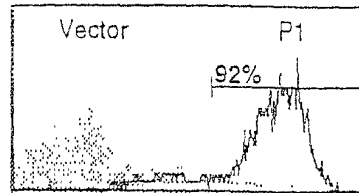


Figure 5C

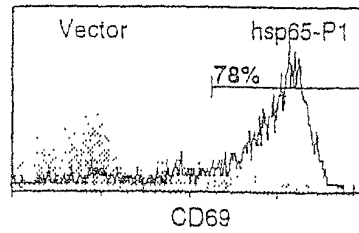


Figure 5D

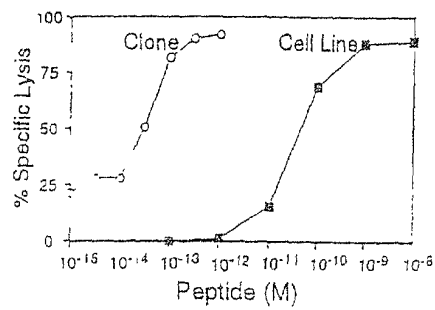


Figure 6A

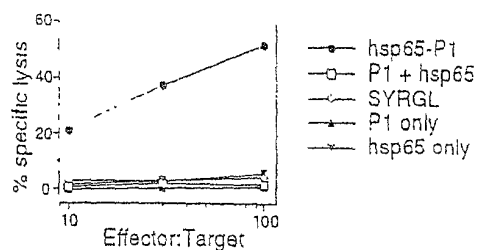


Figure 6B

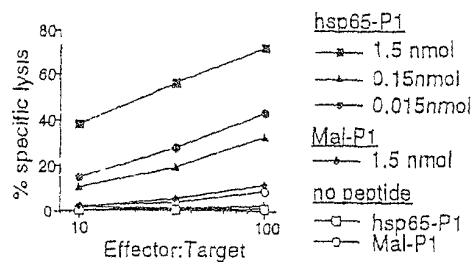
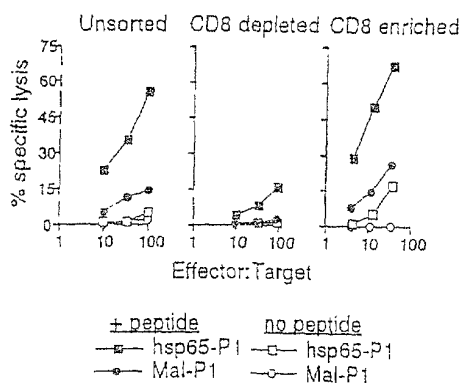


Figure 6C



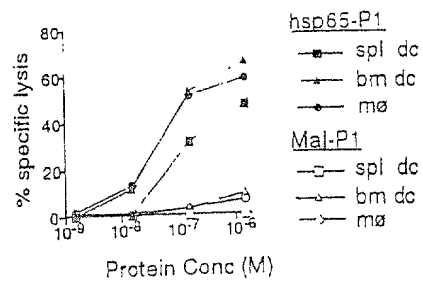


Figure 7

Figure 8A

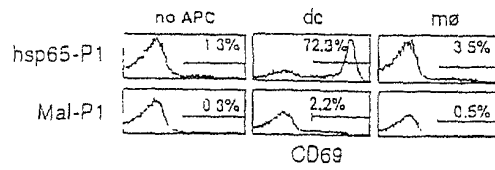


Figure 8B

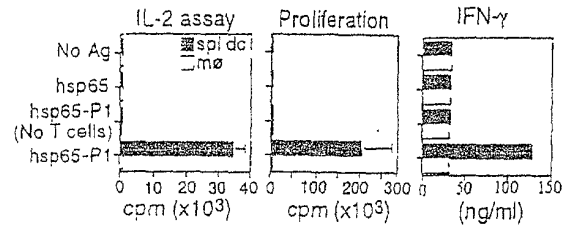


Figure 8C

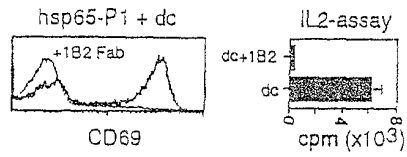


Figure 9A

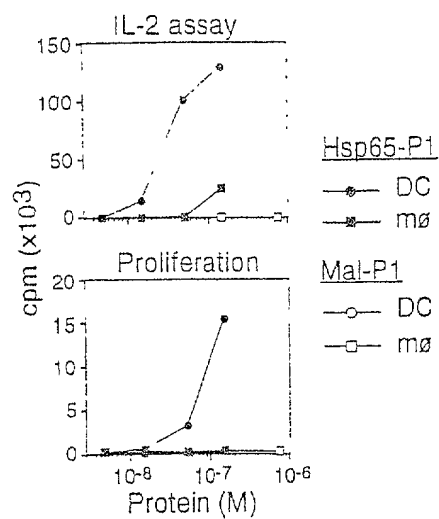


Figure 9B

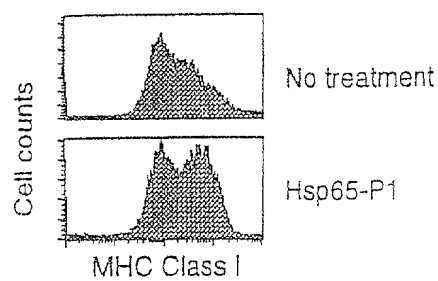
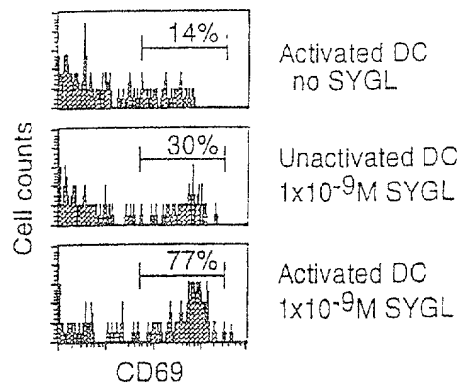


Figure 9C



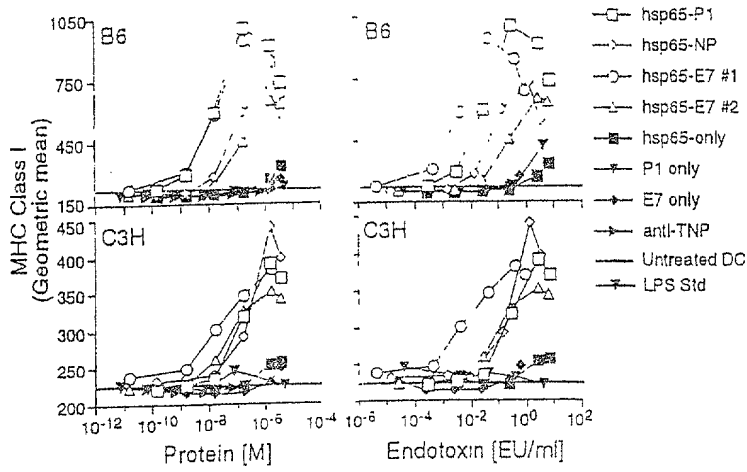


Figure 10A

Figure 10B

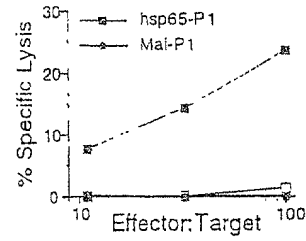


Figure 10C

TBhsp70 (cDNA) -> Translate • 1-frame

DNA sequence 1979 bp ATGGCTCGTCCG ... AGGCCAAGTCAC linear

```

1/1
ATG GCT GGT GCG GTC GGG ATC GAC CTC GCG ACC ACC AAC TCC GTC GTC TCG GTT CTC GAA
M A R A V G I D L G T T N S V V S V L E
61/21
GGT GGC GAC CCG GTC CTC CTC CCC AAC TCC GAG GGC TCC AGG ACC ACC CCG TCA ATT CTC
G G D P V V V A N S E G S R T T P S I V
121/41
CCC TTC CCC CCC AAC CGT GAG GAG CTC CTC GGC CAG CCC CCG AAC CAG GCA GTG ACC
A F A R N G E V L V G Q P A K N Q A V T
181/61
AAC GTC GAT CCG ACC GTG CCG TCG GTC AAG CGA CAC ATG GGC AGC GAC TCG TCC ATA GAG
N V D R T V R S V X R H M C S D W S I E
241/81
ATT GAC GCG AAG AAA TAC ACC GCG CCG GAG ATC ACC GCC CCG ATT CTG ATG AAG CTG AAG
I D C K X Y T A P E I S A R I L M K L K
301/101
CGC GAC GCC GAG GCC TAC CTC GGT GAG GAC ATT ACC GAC CCG GTT ATC ACC AAG CCC GCC
R D A E A Y L G E D I T D A V I T T P A
361/121
TAC TTC AAT CAC GCC CAC CGT CAG GCC ACC AAG GAC GCC GGC CAG ATC GCC GGC CTG AAC
Y F N D A Q R Q A T K D A C Q I A G L N
421/141
GTG CTG CCG ATC GTC AAC GAG CCG ACC CCG GCC GCG CTG GCC TAC GGC CTC GAC AAG GCC
V L R I V N E P T A N A L A Y G L D K G
481/161
GAG AAG GAG CAG CGA ATC CTC GTC TTC GAC TTG GGT GGT GGC ACT TTC GAC GTT TCC CTC
E K E Q R I L V F D L O G G T F D Y S L
541/181
CTG GAG ATC GGC GAG GGT CTC GTT GAG GTC CGT GGT ACT TCG CGT CAC AAC CAC CTC GGC
L E I G E G V V E V R A T S G D N H L G
601/201
GGC GAC GAC TCG CAC CAG CCG CTC GTT GAT TCG CTG GTG CAC AAC TTC AAG GGC ACC AGC
G D D W D Q R V V D W L V D K F K G T S
661/221
GCG ATC GAT CTG ACC AAG GAC AAG ATG GCG ATG CAG CCG CTC CCG GAA CCC GCC GAG AAG
G I D L T K D K M A M Q R L R E A A E K
721/241
GCA AAG ATC GAG CTG AGT TCG AGT CAG TCC ACC TCC ATC AAC CTG CCC TAC ATC ACC GTC
A K Y E L S S S Q S T S E W L F I I T V
781/261
GAC GCC GAC AAG AAC CCG TTG TTC TTA GAC GAG CAG CTG ACC CCG GCG GAG TTC CAA CCG
D A D K N P L F L D E Q L T R A E F Q R
841/281
ATC ACT CAG GPC CTG CTC GAC CCG ACT CCG AAG CCG TTC CAG TCG GTG ATC GCT GAC ACC
I T Q D L L D R T R K P F Q S V I A D T
901/301
GGC ATT TCG GTG TCG GAG ATC GAT CAC GTT GTG CTC CTG GGT GGT TCG ACC CCG ATG CCC
G I S V S E I D H V V L V G G S T R M F
961/321
GGC GTG ACC GAT CTG CTC AAG GAA CTC ACC GCC GGC AAG GAA CCC AAC AAG GGC GTC AAC
A V T D L V K E L T G G X E P N K O V N
1021/341
CCC GAT CAG GTC GTC CCG CTC GGA GCC GGT CTG CAG GCC GCC CTC CTC AAG GGC GAG GTG
P D E V V A V G A A L Q A G V L K G E V
1081/361
AAA GAC GTT CTG CTC CTT GAT GTT ACC CCG CTG ACC CTC GGT ATC GAG ACC AAG GGC GGC
K D V L L L D Y T P L S L G E E T K G G
1141/381
GTG ATG ACC AGG CTC ATC GAG CCG AAC ACC AAG ATC CCC ACC AAG CCG TCG GAG ACT TTC
V M T R L I E R N T T I P T K K S E T F
1201/401
ACC ACC GCC GAC GAC AAC GAA CCG TCG GTG CAC ATC CAG GTC CAT CAG GGC GAG CGT GAG
T T A D D N Q R S V Q I Q V Y Q G H R E

```

Figure 11

TBhsp70 (cDNA) -> Translate • 1-frame

DNA sequence 1879 bp ATGGCTCGTCCG ... AGGCCAAGTGAC linear

481/161	511/171
GAG AAG GAG CAG CGA ATC CTC GTC TTC GAC TTG GGT GGT GGC ACT TTC GAC GTT TCC CTG	
E K E Q R I L V F D L C C G T F D Y S L	
541/191	571/191
CTG GAG ATC GGC GAG GGT GTC GTT GAG GTC CGT GCG ACT TCG CGT GAC AAC CAC CTC GGC	
L E I G E G V V E V R A T S G D N H L G	
601/201	631/211
GGC GAC GAC TGG GAC CAG CCG CTC GTC GAT TGG CTG GTC GAC AAC TTC AAG GGC ACC AGC	
G D D W D Q R V V D W L V D R F X G T S	
661/221	691/231
GGC ATC GAT CTG ACC AAG GAC AAG ATG GCG ATG CAG CCG CTC CCG GAA GCC GCC GAG AAG	
S I D L T K D R M A M Q R L R E A A E N	
721/241	751/251
GCA AAG ACC GAG CTG AGT TCG AGT CAG TCC ACC TCC ACC AAC CTG CCG TAC ATC ACC GTC	
A K I E E S S S Q S T S E N L F Y I T V	
781/261	811/271
GAC GCC GAC AAG AAC CCG TTG TTC TTA GAC GAG CAG JTG ACC CCG CCG GAG TTC CAA CCG	
D A D K N P L F L D E Q L T R A E F Q R	
841/281	871/281
ATC ACT CAG GAC CTG CTG GAC CCG ACT CCG AAG CCG TTC CAG TCG CTG ATC GGT GAC ACC	
I T Q D L L D R T R R F F Q S V I A D T	
901/301	931/311
GGC ATT TCG GTG TCG GAG ATC GAT CAC GTT GTG CTC CTG GGT GGT TCG ACC CCG ATG CCG	
G I S V C E I D H V V L V G G S T R M P	
961/321	991/331
GGC GTG ACC GAT CTG GTC AAG GAA CTC ACC GCG GCG AAG GAA CCG AAC AAG GGC GTC AAC	
A V T D L V R E L T G S X E F N K O V N	
1021/341	1051/351
CCC GAT CAG GTT GTC GCG GTG GGA GCG GGT CTG CAG CCG GCG CTC CTC AAG GGC CAG GTC	
P D E V V A V G A A L Q A G V L K G S V	
1081/361	1111/371
AAA GAC GTT CTG CTG CTT GAT GTT ACC CCG	
K D V L L L D V T F	

Figure 12

murine hsp70.1 -> Translate • 1-frame

DNA sequence 1929 bp ATGGCCAGGAAC ... CAGGTGGATTAG linear

1/1
 ATG GGC AAG AAC ACG GCG ATC GGC ATC GAC CTG GGC ACC ACC TAC TCG TGC GTG GGC GTG
 M A K N T A I G I D L G T T Y S C V G V
 31/11
 61/21
 TTC CAG CAC GGC AAG GTG GAG ATC ATC GCC AAC GAC CAG GGC AAC CCG ACC ACC CCC AGC
 F Q H G K V E I I A N D Q G N R T T P S
 91/31
 121/41
 TAC GTG GGC TTC ACC GAC ACC CAG CCG CTC ATC CGG GAC GGC GGC AAG AAC CAG GTG GGC
 Y V A F T D T E R L I G D A A K N Q V A
 151/51
 181/61
 CTG AAC CCG CAG AAC ACC GTC TTC GAC GCG AAG CGG CTG ATC GGC CCG AAG TTC GGC GAT
 L N P Q N T V F D A K R L I G R K F G D
 211/71
 241/81
 GCG GTG GTG CAG TCC GAC ATG AAG CAC TGG CCC TTC CAG GTG GTG AAC CAC GGC GAC AAG
 A V V Q S D M K H W P F Q V V N D G D K
 271/91
 301/101
 CCC AAG GTG CAG GTG AAC TAC AAG CCG GAG AGC CCG TCG TTC TTC CCC CAG GAG ATC TCG
 P K V Q V N Y K Q E S R S F P P E E I S
 331/111
 361/121
 TCC ATG GTG CTG ACG AAG ATG AAG GAG ATC GCT GAG GCG TAC CTG GGC CAC CCG GTG ACC
 S M V L T K M K E I A E A Y L G H P V T
 391/131
 421/141
 AAC GCG GTG ATC ACG GTG CCC GCG TAC TTC AAC CAC TCT CAC CCG CAG GGC ACC AAG GAC
 N A V I T V F A Y F N D S Q R Q A T K D
 451/151
 481/161
 GCG GCG GTG ATC GCG GGT CTA AAC GTG CTG CCG ATC ATC AAC GAG CCC ACG GCG GCG GCG
 A G V I A G L N V L R I I N E F T A A A
 511/171
 541/181
 ATC GCC TAC CCG CTC CAC CCG ACC CCG AAG GCG GAG CGC AAC GTG CTC ATC TTC GAC CTG
 I A Y G L D R T G K G E R N V L I F D L
 571/191
 601/201
 GCG GCG GCG ACG TTC GAC GTG TCC ATC CTG ACG ATC GAC GAC GGC ATC TTC GAG GTG AAG
 G G G T F D V S I L T I D D G I F E V K
 631/211
 661/221
 GCC ACG GCG GCG GAC ACG CAC CTG GGA GCG GAG GAC TTC CAC AAC CCG CTG GTG ACC CAC
 A T A G D T H L G G E D F D N R L V S H
 691/231
 721/241
 TTC GTG GAG GAG TTC AAG ACG AAG CAC AAG AAG GAC ATC AGC CAG AAC AAG CCG GCG GTG
 F V E E F K R K H K K D I S Q N K R A V
 751/251
 781/261
 CCG CCG CTG CCG ACG GCG TGT CAG ACG GCG AAG ACG ACC CTG TCG TCC AGC ACC CCG GCG
 R R L R T A C E R A K R T L S S S T Q A
 811/271
 841/281
 AGC CTG GAG ATC CAC TCT CTG TTC GAG GGC ATC GAC TTC TAC ACA TCC ATC ACC CCG GCG
 S L E I D S L F E G I D F Y T S I T R A
 871/291
 901/301
 CCG TTC GAA GAG CTG TCC TCG CAC CTG TTC CCG GCG ACG CTG CAG CCC GTG GAG AAC GCG
 R F E E L C S D L F R G T L E P V E K A
 931/311
 961/321
 CTG CCG GAG GCG AAG ATG GAC AAG GCG CAG ATC CAC GAC CTG GTG CTG GTG GGC GCG TCG
 L R D A K M D K A Q I H D L V L V G G S
 991/331
 1021/341
 ACC CCG ATC CCG AAG GTG CAG AAG CTG CTG CAC GAC TTC TTC AAC GCG CCC GAC CTG AAC
 T R I P K V Q K L L Q D F F N G R D L N
 1051/351
 1081/361
 AAG AGC ATC AAC CCG GAC GAG GCG GTG GCG TAC GCG GCG GCG GTG CAG GCG GCG ATC CTG
 K S I N P D E A V A Y G A A V Q A A I L
 1111/371
 1141/381
 ATG CCG GAG AAG TCG GAG AAC GTG CAG GAC CTG CTG CTG CTG GAG GTG GCG CCG CTG TCG
 M G D K S E N V Q D L L L L D V A P L S
 1171/391
 1201/401
 CTG GCG CTG GAG ACT GCG GCG GCG GTG ATG ACG GCG CTC ATC AAG CCG AAC TCG AGC ATC
 L G L E T A G G V M T A L I K R N S T I
 1231/411
 1261/421
 CCC ACC AAG CAG ACC CAG ACC TTC ACC ACC TAC TCG GAC AAC CAG CCC GCG CTG CTG ATC
 P T K Q T Q T F T T Y S D N Q P G V L I
 1291/431

Figure 13A

murine hsp70.1 -> translate * 1-frame

1321/441	1351/451
CAG GTG TAC GAC GGC GAC AGG GCC ATG ACG CGC GAC AAC AAC CTG CTG GCG CCG TTC GAG	
Q V Y E G E R A M T R D N N L L G R F E	
1381/461	1411/471
CTG AGC GGC ATC CCG CCG GCG CCC AGG GGC CTG CCG CAG ATC GAG GTG ACC TTC GAC ATC	
L S G I P P A P R G V P Q I E V T P D I	
1441/481	1471/491
GAC GCC AAC GGC ATC CTG AAC GTC ACG GGC ACC CAC CAG AGC ACC GGC AAC CCG AAC AAG	
D A N G I L N V T A T D K S T G K A N K	
1501/501	1531/511
ATC ACC ATC ACC AAC GAC AAG GGC GGC CTG ACG AAG CAG GAG ATC CAG CCG ATG GTG CAG	
I T I T N D K G R L S K F E I E R M V Q	
1561/521	1591/531
GAG GCC GAG CCG TAC AAG GCC CAG GAC CAG GTG CAG CGC GAC AGG CTG GCC GCC AAG AAC	
E A E R Y K A E D E V Q R D R V A A R N	
1621/541	1651/551
CGC CTC GAC TCC TAT GCC TTC AAC ATG AAG ACC GCC GTG CAG GAC CAG GCT CTC AAG GCC	
A L E S Y A F N M R S A V E D E C L K G	
1681/561	1711/571
AGC CTC AGC GAG GCT GAC AAG AAG AAG GTC CTG GAC AAG TGC CAG GAG CTC ATC TCC TGG	
K L S E A D K K K V L D K C Q E V I S W	
1741/581	1771/591
CTG CAC TCC AAC ACC CTG GCC GAC CAG GGC CAG TTC GTG CAC AAG CCG CAG GAG CTG GAG	
L D S M T L A D K N E F V H K R E E I E	
1801/601	1831/611
CGG GTG TGC ACC CCG ATC ATC AGT GGG CTG TAC CAG GGT GCG CGT GCT CCT GGG GCT GGC	
R V C S P I T S G L Y Q G A G A P C A G	
1861/621	1891/631
GGC TTC GGG CCG CAG GCG CCG CCG AAA GGA GCC TCT GGC TCA GGA CCG ACC ATC GAG GAG	
G F G A Q A P P K G A S G S G P T I R E	
1921/641	
GTG GAT TAG	
V D *	

Figure 13B

murine hsp70.1 -> Translate • 1-frame

DNA sequence 1929 bp ATGGCCAGAGAC ... GAGGTGGATTAG Linear

577/139:
 AAG GGC GAG GGC AAC GTG CTC ATC TTC GAC CTG
 K G E R N V L I F D L
 631/221
 GGG GGC GGC ACG TTC GAC GTG TCC ATC CTG ACG ATC GAC GAC GGC ATC TTC GAG GTG AAG
 G G G T F D V S I L T I D D G I F E V K
 661/221
 GCC ACG GCG GGC GAC ACG CAC CTG GGA GCG GAG GAC TTC CAC AAC CCG CTG GTG ACC CAC
 A T A G D T H L G G E D F D N R L V S H
 721/241
 TTC GTG GAG GAG TTC AAG ACG AAG CAC AAG AAG GAC ATC AGC CAG AAC AAG CCG GCG GTG
 F V E E F K R K H K K D I S Q N K R A V
 781/261
 CGG GCG CTG CCG ACG GCG TGT CAG ACG GCC AAG ACG ACG CTG TCG TCC ACC ACC CAC GCC
 R R L R T A C E R A K R T L S S S T Q A
 841/281
 AGC CTC GAC ATC CAC TGT CTG TTC GAG GGC ATC GAC TTC TAC ACA TCC ATC ACG CCG GCG
 S L E I D S L F E G I D F Y T S I T R A
 901/301
 CGG TTC GAA GAG CTG TCG TCG CAC CTG CTC CCG GCG ACG CTG CAG CCC GTG CAG AAC CCC
 R F E E L C S D L F R G T L E P V E K A
 961/321
 CTC CCG GAC GCC AAG ATG GAC AAG GCC CAG ATC CAC GAC CTG GTG CTG GTG GCG GCG TCG
 L R D A K M D K A Q I H D L V L V G G S
 1021/341
 ACG CCG ATC CCC AAG GTG CAG AAG CTG CTG CAC GAC TTC TTC AAC CCG CCG GAC CTG AAC
 T R I P K V Q K L L Q D F F N G E D L N
 1081/361
 AAC AGC ATC AAC CCG GAC GAG GCG GTG GCC TAC GCG GCG GCG GTG CAG GCG GCC AAC CTG
 N S I N P D E A V A Y G R A V Q A A I L
 1141/381
 ATG CCG GAC AAG TCG GAG AAC GTG CAG GAC CTG CTG CTG CTG GAC GTG GCG CCC
 M G D K S E N V Q D L L L L D V A P

Figure 14